


## POLICY M E M O R A N D U M

To: Interested Parties

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Administrator  
Solid & Hazardous Waste Division  
Wyoming Department of Environmental Quality

Date: June 4, 2009

Subject: Routine groundwater monitoring reports for MSW Landfills

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The purpose of this memo is to provide a directive on information that must be included in routine ground water monitoring reports for municipal solid waste (MSW) landfills that are submitted to the Solid and Hazardous Waste Division, Solid Waste Permitting & Corrective Action Program. In this context, a routine groundwater monitoring report is considered to be the information submitted 30 days after completion of each sampling and analysis event, not the annual reports which may include additional information. The following bulleted list describes information that needs to be included in each report and clarification on some subjects where the Department has noted confusion or lack of consistency in past reports.

- A brief description of work that was conducted including sampling dates, any deviations from the approved groundwater monitoring plan for the facility such as any wells that were not sampled, constituents not analyzed, any broken wells, descriptions of how wells were purged and how samples were collected, including well numbers, type(s) of pump (if used), flow rates (if applicable), description of groundwater flow direction determined using water level information that was collected, any deviations in groundwater flow direction compared to past events, etc. The report should include a copy of the sampling information for the next scheduled sampling event, with the anticipated date of sampling (to the nearest month), wells to be sampled and sample parameters, such as baseline parameters, Appendix A, etc., for each well.
- Site map showing facility location, using a base map such as a portion of a USGS quadrangle map, with scale and north arrow at a standard scale such as 1:24,000. Assuming there are no changes in facility size, etc. a copy of the same base map may be provided with each subsequent report.
- Water table map at a common scale such as 1": 100', 200', etc. feet with well numbers posted on the map along with groundwater elevations for each well posted next to each well, groundwater contours labeled, dates of water table elevations, scale, north arrow, site topography and any salient features shown shaded in the background.
- Results of statistical analysis as appropriate for each facility.
- Paper copies of all lab data sheets, including the laboratory QA/QC summary report, sample log-in sheet, case narrative, chain of custody (COC) form, and any attachments to the COC.
- Copies of all handwritten/original field notes and field forms.
- A CD containing an electronic copy of the routine groundwater monitoring report and electronic data. The electronic data needs to include water level information, analytical data

from the laboratory, and field parameters measured during sampling in the Department specified format (see below). For all new wells, well construction information must also be provided electronically if not previously submitted. Unless changes have occurred, well construction and survey data should only be submitted once. For format information see: Memorandum: Groundwater Monitoring Data Reporting Format for Municipal Solid Waste Landfills, May 6, 2008. This document is available electronically at <http://deq.state.wy.us/shwd/gwg/website%20papers/Groundwater%20monitoring%20data%20reporting%20format%20for%20MSW%20LFs%20080506.pdf>

- For all well data submitted, well numbers must be identical to the well numbers that were used in the well construction table. If discrepancies in well numbers are identified, the entire data file will be rejected before further review, and returned to the operator for corrections and resubmittal of the data file.
- Unless otherwise directed two hard copies and the above referenced CD containing an electronic copy of the routine groundwater monitoring report must be submitted to the Department within thirty (30) days after completing sampling and analysis. This CD needs to include copies of all electronic data mentioned above.

#### SPECIAL NOTES

- If not previously provided, survey information for well locations must be provided using longitude and latitude in decimal degrees to six decimal degrees accuracy referenced to NAD 1983. Wells must be resurveyed and new information provided for measuring point elevations whenever a change is made to a well, that results in a change in the measuring point elevation, such as repairing broken casing. Measuring point elevations must be surveyed within a minimum accuracy of +/- 0.01 foot to support mapping of groundwater surface elevations.
- As a reminder, reporting limits or Practical Quantitation Limits (PQLs) for each constituent shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility. The PQLs must be at least as low as the groundwater protection standard for each constituent.

Deviations from the above may be arranged with DEQ staff on a case-by-case basis depending on the current status of a given facility's groundwater monitoring program.